Amendments to the Claims

This listing of claims replaces all prior versions and listings of the claims in the application.

Listing of Claims:

1. (Currently amended) A method comprising ~~a step of~~ steps of comparing a track profile for a first track to a predetermined threshold, and determining a head positioning profile for ~~a~~ the first track in relation to ~~a~~ the track profile for the first track and a track profile for a second track in response to said comparison.

2. (Original) The method of Claim 1, wherein each track profile is a PES RRO track profile.

3. (Previously presented) The method of Claim 1, wherein the head positioning profile of the determining step is further generated in relation to a track profile for a third track.

4. (Previously presented) The method of Claim 3, wherein a track profile is represented by WI, the first track is represented by n, the second track is represented by n-1, and the third track is represented by n+1, the head positioning profile is represented by $ZAP(n)$, and wherein $ZAP(n) = -WI(n) - alpha*[WI(n-1) + WI(n+1)]$, where alpha is a number between 0 and 1.

5. (Original) The method of Claim 4, wherein alpha is substantially equal to 0.5.

6. (Currently amended) A method of compensating for positioning errors in a data storage device, comprising a step of determining a head positioning profile for a first track in relation to ~~zero acceleration path (ZAP) information~~ a track profile for the first track in combination with ~~ZAP information~~ a track profile for a second track and a non-zero weighting value.

7. (Original) The method of claim 6, further comprising a step of selectively ZAPing particular tracks on the data storage device based upon whether a given tracks' maximum profile exceeds a predetermined threshold value.

8. (Previously presented) The method of Claim 6, wherein the head positioning profile of the determining step is further determined in relation to ZAP information for a third track.

9. (Currently amended) The method of Claim 6, wherein the head positioning profile is determined in relation to $ZAP(n) = -WI(n) - alpha*[WI(n-1) + WI(n+1)]$, wherein $WI(n)$ is the ~~ZAP information~~ track profile for the first track, $WI(n-1)$ is the ~~ZAP information~~ track profile for the second track, $WI(n+1)$ is ~~ZAP information~~ a track profile for a third track, and wherein alpha is ~~a numeric value between 0 and 1~~ the non-zero weighting value.

10. (Original) The method of Claim 9 wherein alpha is substantially equal to 0.5.

11. (Original) A system for compensating for positioning errors in a data storage device having a plurality of tracks by zero acceleration processing (ZAP), comprising:

means for selectively determining which of the plurality of tracks to ZAP; and

means for ZAPing at least one of the selectively determined tracks using a track profile of the track being ZAPed in addition to a track profile of a track adjacent to the track being ZAPed to generate a head positioning profile for the at least one track.

12. (Original) The system of Claim 11, wherein each track profile is a PES RRO track profile.

Claim 13 (Cancelled).

14. (Previously presented) The method of claim 1, wherein the first and second tracks are disposed on a rotatable data storage medium.

15. (Previously presented) The method of claim 6, further comprising a prior step of comparing the track profile for the first track to a predetermined threshold, and performing the determining step for the first track in relation to said comparison.

16. (Previously presented) The method of claim 6, wherein the first and second tracks are disposed on a rotatable data storage medium.

17. (Previously presented) The system of claim 11, wherein the plurality of tracks are disposed on a rotatable data storage medium of said device.

18. (New) A method comprising steps of comparing a track profile for a first track to a predetermined threshold, and determining a head positioning profile for the first track in relation to the track profile for the first track in response to said comparison.

19. (New) The method of claim 18, wherein the head positioning profile of the determining step is further determined in relation to a track profile for a second track.

20. (New) The method of Claim 19, wherein the head positioning profile of the determining step is further determined in relation to a track profile for a third track.

21. (New) The method of Claim 20, wherein a track profile is represented by WI, the first track is represented by n, the second track is represented by n-1, and the third track is represented by n+1, the head positioning profile is represented by ZAP(n), and wherein ZAP(n) = -WI(n) – alpha*[WI(n-1) + WI(n+1)], where alpha is a value between 0 and 1.